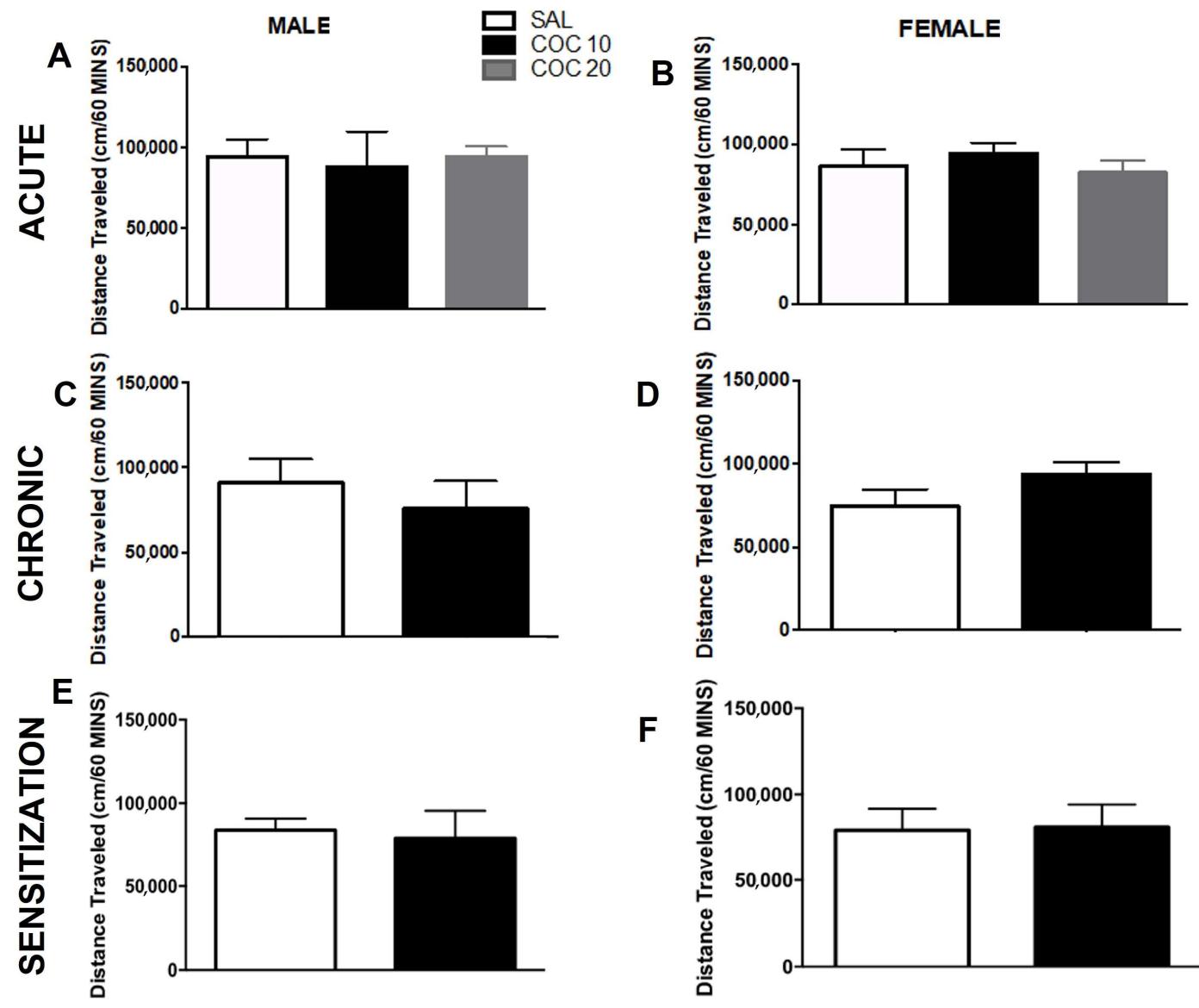
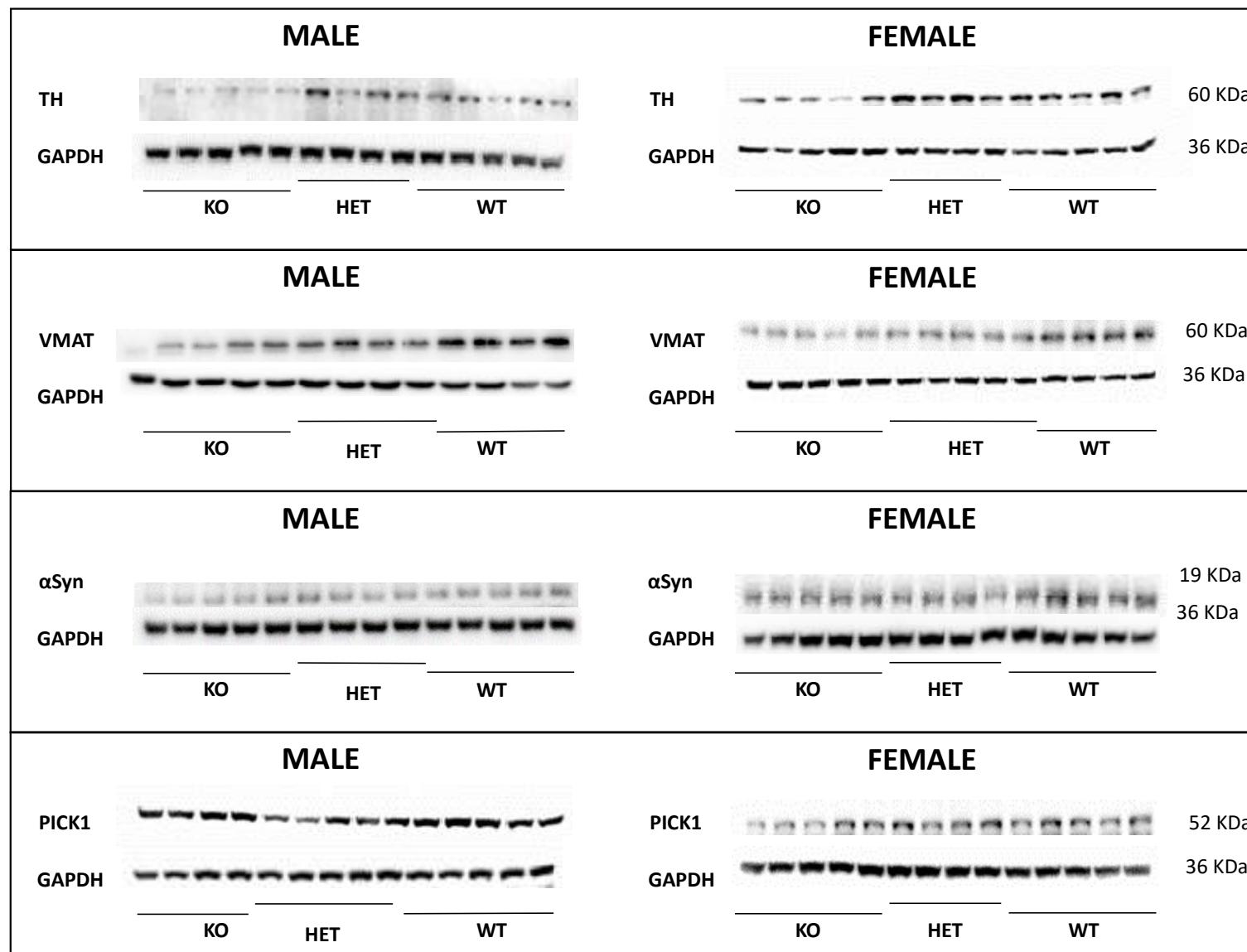


**Supplementary Figure S1**





Supplementary Figure S3

**Supplementary Figure S1.** Illustrative example of Wild-type (WT) (A), Heterozygous (HET) (B) and Knockout (KO) (C) rat's travel pathway on the open field during 30 minutes of habituation.

**Supplementary Figure S2.** Acute, chronic and sensitization effects of cocaine on locomotor activity in KO DAT rats. Cumulative time (30 min after acute treatment) is represented across conditions (SAL=saline, COC 10= 10mg/kg cocaine; COC 20= 20mg/kg cocaine) in males (A,C,D) and females (B,D,F), during acute (A,B), chronic (C,D) and sensitization (E,F) conditions. Mean ± SEM. (males: KO N=17; females: KO N=23).

**Supplementary Figure S3.** Western blot images of striatal protein expression of A) Tyrosine-hydroxylase (TH), B) Vesicular monoamine transporter 2 (VMAT2), C)  $\alpha$ -Synuclein ( $\alpha$ -Syn) and D) protein interacting with C-kinase-1 (PICK) in DAT mutant rats